

## CLAIMS

What is claimed and desired to be covered by Letters Patent is as follows:

1. A device, comprising:
  - (a) a housing member;
  - (b) a control mechanism connected to said housing member;
  - (c) a microprocessor;
  - (d) an air temperature measuring device;
  - (e) a relative humidity measuring device;
  - (f) an air inlet in said housing member configured to operatively expose said air temperature measuring device and said relative humidity measuring device to the ambient atmosphere; and
  - (g) a power source for operating said control mechanism; wherein said control mechanism is configured to operatively determine and communicate in real time to a user the ambient air temperature, the ambient relative humidity, and a heat index of the user's ambient environment to the microprocessor.
2. The device of claim 1, wherein said control mechanism includes a display mechanism operatively configured to display said heat index.
3. The device of claim 2, wherein said control mechanism further includes a display

switch configured to permit manual control of said display mechanism.

4. The device of claim 3, wherein said control mechanism further includes a display switch configured to permit manual control of said display mechanism.
5. The device of claim 1, wherein said control mechanism further includes a display switch configured to permit manual control of a display mechanism.
6. The device of claim 1, wherein said control mechanism includes a signaling device configured to operatively signal the user when the ambient heat index reaches a certain predetermined condition.
7. The device of claim 6, wherein said signaling device is configured to provide an audible signal to the user.
8. The device of claim 6, wherein said signaling device is configured to provide a vibrational signal to the user.
9. The device of claim 6, wherein said signaling device is also configured to provide a vibrational signal to the user.
10. The device of claim 6, further including an attaching mechanism configured to attach said housing member to the user.

11. A device, comprising:

- (a) a housing member, including an air inlet configured to operatively permit ambient air into an internal chamber of said housing member;
- (b) a control mechanism connected to said housing member, said control mechanism including:
  - (1) a microprocessor,
  - (2) an air temperature measuring device, wherein said air temperature measuring device is configured to operatively determine a user's ambient air temperature from said ambient air entering said internal chamber and to communicate same real time to said microprocessor,
  - (3) a relative humidity measuring device, wherein said relative humidity measuring device is configured to operatively determine the user's ambient relative humidity from said ambient air entering said internal chamber and to communicate same real time to said microprocessor,
  - (4) a first display mechanism connected to said microprocessor and configured to display a heat index,
  - (5) a second display mechanism connected to said microprocessor and configured to display said ambient air temperature and said ambient relative humidity,

- (6) a first display switch configured to permit manual control of said first display mechanism,
  - (7) a second display switch configured to permit manual control of said second display mechanism, and
  - (8) a signaling device configured to operatively signal the user when the combined ambient air temperature and ambient relative humidity result in a predetermined heat index calculation;
- (c) a power source for operating said control mechanism;
  - (d) an attaching mechanism configured to attach said housing member to the user; and
  - (e) wherein said control mechanism is configured to operatively determine and communicate real time to the user the heat index of the user's ambient environment.